CLAIMS

Claims 1 - 26 (Cancelled)

27. (Previously Presented) A firewall device for inspecting packets transmitted over a network comprising:

a) a firewall core connected to each of a plurality of communication interfaces and executing at least one inspection module wherein each at least one inspection module is software code configured to carry out an operation of providing protocol information for a particular protocol to said firewall core; and

b) a new inspection module inserted into an operating memory of said firewall core during operation of said firewall core wherein said new inspection module is software code configured to carry out an operation of providing protocol inspection for a new particular protocol to said firewall core wherein said new particular protocol is different from each said particular protocol provided by each said at least one inspection module.

28. (Previously Presented) The firewall device of claim 27, wherein said firewall core is configured to monitor said operating memory for said new inspection module.

29. (Previously Presented) The firewall device of claim 27, wherein each said at least one inspection module and said new inspection module each further comprise a plurality of callback functions, said plurality of callback functions communicated to said firewall core and providing communication between said firewall core and said at least one inspection module.

30. (Previously Presented) The firewall device of claim 27, wherein each said at least one inspection module and new inspection module are each further configured to indicate to said firewall core for which protocol for data packets said inspection module is configured to provide inspection.

31. (Previously Presented) The firewall device of claim 27, wherein each data packet intercepted by said firewall core further includes session information comprising address and port data, said firewall core further configured to map said session information for each said data packet to one of said at least one inspection modules and said new inspection module.

32. (Previously Presented) A firewall core in a firewall system that inspects data packets transmitted over a network comprising:

a communication unit wherein said communication unit is operatively coupled to each one of a plurality of communication interfaces connected to said network;

a set of callback functions, retrieved from each of at least one inspection modules loaded into a memory of said firewall core, each of said set of callback functions provide communication between said firewall core and one of said at least one inspection modules and wherein each said at least one inspection module is software code configured to carry out the operation of providing protocol information and to inspect data packets of a particular protocol; and

wherein said firewall core monitors said memory to determine when a new inspection module is loaded into said memory wherein said in new inspection module is inserted into an operating memory of said firewall core during operation of said firewall

core wherein said new inspection module is software code configured to carry out an operation of providing protocol inspection for a new particular protocol to said firewall core wherein said new particular protocol is different from each said particular protocol provided by each said at least one inspection module.

33. (Previously Presented) The firewall core of claim 32, wherein said communication unit is further configured to intercept network data communicated via each of said plurality of communication interfaces.

34. (Previously Presented) The firewall core of claim 32, further comprising a session mapping unit, said data packets intercepted by said firewall core further including session information comprising address and port data, said session mapping unit further configured to map said session information to a corresponding one of said at least one inspection modules providing inspection for said protocol of said packet into a session mapping and store said session mapping into said session mapping unit.

35. (Previously Presented) The firewall core of claim 34, wherein said communication unit is further configured to communicate a packet between said communication interfaces and one of said at least one inspection modules.

36. (Previously Presented) An inspection module for a firewall device comprising software code stored in a memory of a firewall core that inspects packets transmitted over a network in a particular protocol, said inspection module comprising:

an inspection unit configured to inspect and authorize data packets formatted in said particular protocol;

a function table including a set of callback functions wherein said set if callback functions provides communication between said firewall core and said inspection module; and

wherein said inspection module is loaded into said memory monitored by said firewall core during operation of said firewall device.

37. (Previously Presented) The inspection module of claim 36, wherein said inspection module is further configured to indicate to said firewall core for said protocol for data packets to be inspected by said inspection module.

38. (Previously Presented) The inspection module of claim 36, where in said inspection unit is further configured to receive and inspect packets communicated from the firewall core to said inspection module.

39. (Previously Presented) A method for providing an inspection module for inspecting data packets of a particular protocol to a firewall system during runtime comprising:

loading an inspection module into a memory monitored by a firewall core during operation of said firewall system wherein said inspection module comprises software code for an application providing inspections of packets in said particular protocol;

notifying the firewall core of said inspection module in said memory; and

communicating said set of callback functions from said inspection module to said firewall core.

40. (Previously Presented) The method of claim 39, further comprising enabling said inspection module, prior to communicating said set of callback function to said firewall core.

41. (Previously Presented) The method of claim 39 further comprising inspecting of packets of said particular protocol by said inspection module, said packets communicated from the firewall core to said inspection module.

42. (Previously Presented) The method of claim 39 wherein said step of notifying the firewall core comprises:

transmitting a signal to the firewall core to indicate the installation of said inspection module.

43. (Previously Presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for adding protocol knowledge to a firewall system during runtime comprising, said firewall system including a firewall core, said method comprising:

loading an inspection module into a memory monitored by said firewall core during operation of said firewall system wherein said inspection module comprises software code executable to inspect a data packet of a particular protocol and to provide protocol information for said particular protocol to said firewall core;

notifying the firewall core said inspection module is loaded into said memory responsive to said loading; and

communicating a set of callback functions from said inspection module to said firewall core.

44. (Previously Presented) The program storage device of claim 43, said method further comprising:

enabling said inspection module prior to communicating said set of callback functions to said firewall core.

45. (Previously Presented) The program storage device of claim 43, said method further comprising:

inspecting of packets by said inspection module, said packets communicated from the firewall core to said inspection module.

46. (Previously Presented) The program storage device of claim 39, wherein said step of notifying the firewall core comprises:

transmitting a signal to the firewall core to indicate the loading of said inspection module.

47. (Previously Presented) The program storage device of claim 39, said method further comprising:

indicating by said inspection module said particular protocol of data packets that said inspection module inspects.